



As I see

THE NEED FOR CONSERVATION

MANY of us thought the only thing that Patrick Henry ever said was, "Give me liberty or give me death." I was very surprised the other day in reading *Topsoil and Civilization*, by Tom Dale and Vernon Gill Carter, to find that he also said, "Since the achievement of our independence, he is the greatest patriot who stops the most gullies." This unexpected garrulity of his on the subject of soil conservation reminds me that George Washington and Thomas Jefferson were also very much interested in the same subject. These were the exceptions, however, as most of our early colonists, with unlimited ground available, used up and wasted topsoil at a scandalous rate.

I would like to recommend this book, *Topsoil and Civilization*. The authors take as their thesis that each great civilization of the past has lasted as long as its topsoil and its raw materials. I have found their story very convincing and interestingly told. They point out that the fertility of the earth developed over millions of years, and that plants and animals contributed to the development of our topsoil and raw materials until primitive man became civilized about 6,000 years ago. From then on the soil-building process has been reversed in most areas where he resided. The quantity and quality of soil and the amount of life the soil supported all began to decline. His superior tools and intelligence enabled civilized man to domesticate or destroy a great part of the plant and animal life around him. His improved tools and techniques helped him to destroy the productivity of the soil-supported life. In his mismanagement of land, man-induced erosion has reduced the value of millions of acres.

In the civilizations of the past, when the fertility declined and the civilization could no longer be supported, an attempt was always made to secure additional wealth by conquering new areas or by taking older fertile areas away from their previous owners. This occurred time and again in the history of Egypt, Mesopotamia, and the countries around the Mediterranean. Areas which once had been fertile and which had supported an advanced civilization became deserts.

In regard to America, the authors point out that we have caused more waste and ruin in a shorter time than any people before us because we have had more land to exploit and better equipment with which to exploit it.

Most of our rivers are carrying our topsoil away at a tremendous rate. Many of these rivers were once clear. In 1634, Father White, an Indian missionary,

wrote of the Potomac River, "This is the sweetest and greatest river ever seen . . . there are no marshes or swamps about it. Its waters are clear and sweet. It abounds with delicate springs." When we destroyed the forests and the vegetation, we increased the rapidity with which water runs off, with a rapid increase in the rate of erosion. The Potomac today is no longer "clear and sweet," but is carrying millions of cubic yards of topsoil out into the ocean.

I had just finished reading this book when I came across a talk by B. Brewster Jennings, chairman of the board of the Socony-Mobiloil Co., Inc., which stressed much the same theme. He called this talk, "A Richer Life in a Poorer World," and gave many illustrations of the exhaustion of our raw materials. Since 1900, our population has more than doubled. Since that time our annual copper consumption has been multiplied seven times. Our use of oil is 75 times greater than it was then. Aluminum has gone from nothing, until now we are using aluminum three times as fast as copper. We, in the United States, have had this almost explosive increase in the use of raw materials and natural resources because of a rapidly growing population and a rapid rise in the standards of living, resulting in more people consuming more per person. Mr. Jennings points out that our ability to meet this demand is far more of a testimonial to our natural resourcefulness than to our natural resources.

In the eighteenth century, unless ore contained 13% copper it was considered unworkable. By 1900, the average grade of copper ore being processed was about 5%. It is now well below 1%. We are now recovering copper from materials which were discarded as waste in the Great Lakes region 50 years ago. Ten years ago a million barrels could be added to the oil reserve, on the average, by drilling 50,000 feet. Last year, oil producers drilled 78,500 feet for every million barrels added to the reserve. At the turn of the century, all of our iron ore was so rich it could be taken directly to the blast furnaces. Now, more than a fourth of all the iron ore shipped in this country and Canada has to go through an expensive eight-step concentration process requiring an enormous capital investment.

During a large part of the history of the United States we have shipped our products throughout the world and, to some extent, we have become rich by selling our natural resources to other countries.

We cannot continue indefinitely to mine poorer and poorer grades of ore and to drill deeper for oil. This is a rich country and we have the advantage of a large balance in the bank but, unfortunately, during the past 300 years our withdrawals have exceeded our deposits. If we follow the history of other great nations of the past, the bank will eventually send us a notice of insufficient funds, and when this happens, our period of greatness and of world leadership will end.

If our natural resources were inexhaustible, there would still be no reason for using human labor to produce surpluses for which there is no logical use. This we have consistently done on farm products since the war. Someone has seriously suggested that we would be much better off were we to load all of our surpluses in ships and dump them in the middle of the ocean. Secretary

Benson has said repeatedly that one reason that the prices of farm products have gone down, while practically all other prices in our economy have gone up, has been the overhang on the market of these tremendous quantities of unused and unusable products. He has estimated that farm prices today would be 15% higher were it not for these surpluses.

Of course, one of the difficulties of disposing of our surplus by dumping it in the ocean is that we haven't enough ships to carry it. If we stopped all foreign and domestic shipments and devoted all of our active cargo vessels to disposing of our surplus in this manner, it would require eight round trips in order to clear our warehouses.

This surplus is still accumulating. The present Administration has not been able to find ways of selling it at reduced prices or of giving it away fast enough to keep the excess from getting greater.

The human race seems to be particularly inept at learning from experience. It has taken us many years to find out that we cannot maintain a price for products above the world market price without having these unusable surpluses develop and, unfortunately, there are still enough people who believe that the Federal Government, in some way or other, can guarantee a certain scale of living to its citizens, in spite of the fact that all such efforts in the past have failed.

The difficulty in farm prices lies entirely in the field where the Government has attempted the operation of so-called "parity formulas." The farm products not covered by these formulas, have had a far more satisfactory price history since the war than those for which control was attempted.

There is one encouraging aspect to the future of America which was not present in the histories of the great nations of the past. Modern science is rapidly decreasing our dependence on natural raw materials. The time will undoubtedly come in the United States when we will find it more practical to use various plastics and synthetics for most of the products for which, in the past, we have depended primarily on natural wood and plant fibers. Our supplies of coal, oil, and natural gas are exhaustible and are rapidly dwindling, but these, in time, may be replaced, to a large extent, by various phases of atomic energy. If man is sufficiently ingenious, and if his capacities are kept free, his individual initiative will enable him to live in reasonable comfort in a barren land, judged by the agricultural standards of the past.

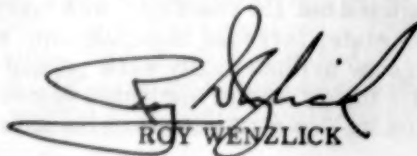
The one field, however, in which, in the long run, there may be some question of survival is the production of adequate quantities of food. As Thomas Malthus pointed out 150 years ago, with every increase in economic well-being there comes a greater increase in population; or, as he put it, the means of sustenance increase arithmetically while population has a tendency to increase geometrically. His theory was promulgated before the widespread acceptance of birth control, and the low birth rates and the slow rate of population growth of the 1930's were

used to prove him wrong. The rapid increase in the birth rate in the recent past, with the much greater rate of population increase which we have experienced during the period of great prosperity, may indicate that he was more nearly correct than some of his critics believed.

Undoubtedly, our ability to produce more food with less effort will increase and, as it does, we will push farther into the future the period in which the food supply will not be adequate. Possibly by that time we may have learned to produce most of our foods synthetically without the necessity of raising them on farms. Like most of the rest of Americans, however, I enjoy nonsynthetic eating, and I think it might be difficult to convince me that I could dispense with the habit and substitute a synthetic pill for a shrimp cocktail, or a highly concentrated vitamin for roast turkey.

The human constitution is reasonably adaptable, but only over considerable periods of time. It is entirely possible that our descendants will eventually live on synthetic foods, but if and when this comes, it will probably be accompanied by gradual changes in body structure and functions. Evolution in the past has enabled organisms to modify themselves in such a way that they could conform to changes in their environment. This ability, however, has worked only for changes which came over many generations and thousands or millions of years. Changes in environment which came over shorter periods have generally been fatal to those forms of life which could not readily adapt themselves.

In the agricultural field I am definitely against the permanent retention of parities, except as disaster insurance. They should be low enough that they will not furnish an incentive to produce at a price above the market except in periods of real distress. I think the soil bank plan is worth trying at the present time, but I am interested in it primarily as a method of withdrawing marginal land from cultivation, much of it land which never should have been cleared. I am interested in anything which stresses conservation, frugality, and savings. For more than a generation we have been given an intensive course by the Federal Government in how to increase our debts and live on the future. Debt repayment has gotten to the point where we can no longer gain purchasing power by spending tomorrow's income, as the amount we would gain is already being subtracted from our income on the debts we contracted yesterday. The tight money situation and our financial plight at the present time are not due to a tight money policy of the Federal Government. They are not due to the raising of the re-discount rates by the Federal Reserve. They are due primarily to the fact that we have been encouraged to spend until the savings of the past have been exhausted and at the present time are not being restored rapidly enough to take care of our exaggerated desire for standards of living which we cannot afford.



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